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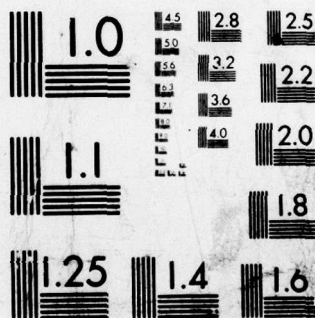
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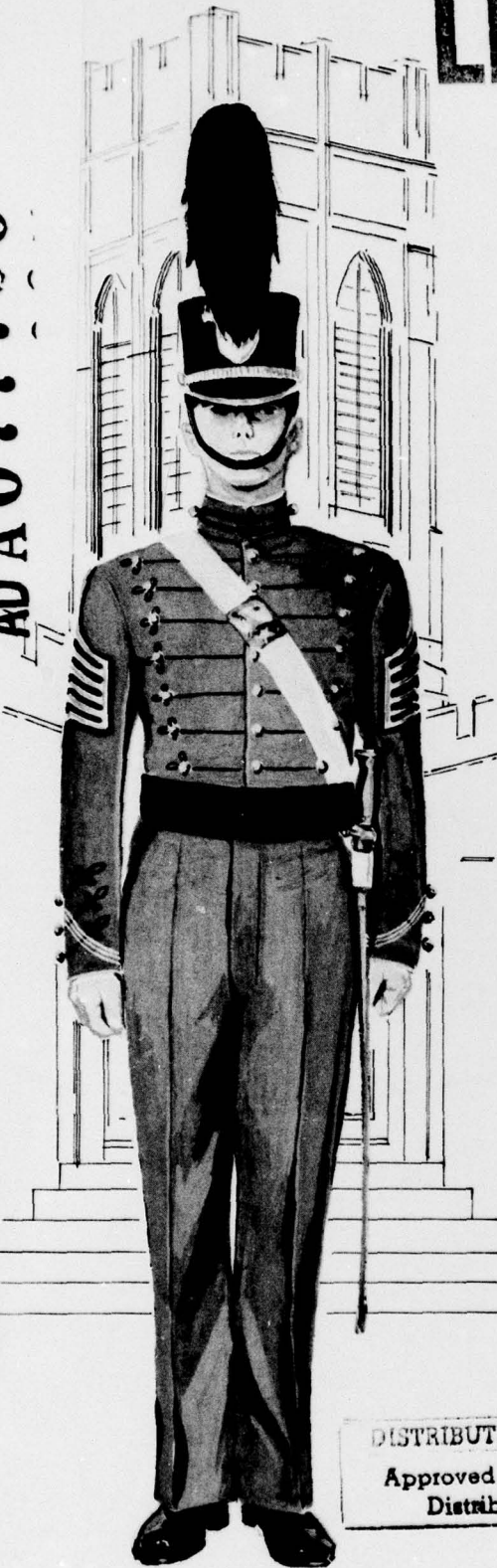
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RELATIONSHIP BETWEEN SICK CALL AND USMA PERFORMANCE

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Prepared by: Dr. Richard P. Butler

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ABSTRACT

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The purpose of this study was to identify the relationships between frequency of sick call and length of hospitalization and the criteria of Aptitude for the Service Ratings (ASR) and General Order of Merit (GOM). A one-quarter sample of cadets was randomly selected from each of the Classes of 1972-73-74-75 and followed throughout the academic year of 1971-72. The relationships between the criteria and frequency of sick call were statistically significant but of little practical importance, except to indicate that other variables have much more influence on ASR and GOM than does sick call frequency. Plebes that were hospitalized did poorer on ASR than those not hospitalized. ↙

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INTRODUCTION

There is the possibility that absences from the company area, whether or not they are justifiable, affect various indices of performance at the U. S. Military Academy. One such absence from the company area is illnesses and injuries that require the attention of a physician at the USMA hospital. As Lauterback, Vielhaber, and Gottheil (1964) hypothesized, such hospital visits may also be considered an index of cadet non-effectiveness and low morale. Support for their hypothesis was received when they found that during New Cadet Barracks the number of sick call visits was related to cadet attrition. In a second study (Gottheil, Vielhaber, and Lauterback, 1964) the reliability of the sick call measure was investigated. It was found that coming on sick call during one month was associated with coming on sick call during the next month.

It would appear, then, that sick call may be an important indicator of success at USMA. It was the purpose of the present study to identify the relationship between the performance criteria of Aptitude for the Service Rating (ASR)* and General Order of Merit (GOM), and the total number of times a cadet reported to the USMA Army Hospital for treatment. It was also intended to examine the relationship between the criteria and length of hospitalization.

METHOD

Subjects

The subjects were a one-fourth random sample from each of the Classes of 1972-73-74-75. When the data gathering period had ended, resignees were excluded from the sample. This exclusion left only retained cadets in the sample and included 200 First Classmen, 240 Second Classmen, 194 Third Classmen, and 243 Fourth Classmen. Resignees were excluded because they did not have criteria scores.

Procedure

All the Individual Appointment/Sick Slip Forms that the USMA Hospital processed from October through May were sent daily to the Office of the Director of Institutional Research. If the cadet making the hospital visit was among the one-fourth randomly selected sample then the cadet number, date, reason for the hospital visit (sick call, emergency sick call, or appointment), and hospital admission (yes or no) were recorded. If the cadet was admitted to the hospital, the elapsed length of hospitalization was recorded by subtracting the "date in" from the "date out." Admission and Disposition Sheets were used to obtain information pertaining to "date out."

Every time a cadet from the pre-selected sample filled out an Individual Appointment/Sick Slip, the information was recorded on IBM 1230 Answer sheets, which eliminated manual keypunching. Data were gathered from 4 October 1971 to 31 May 1972.

The criteria of ASR Order of Merit and GOM were obtained from the computer files of the Office of the Director of Institutional Research. The criteria were related to the hospital data by correlational analysis and Z tests.

RESULTS

The basic data collected from the Individual Appointment/Sick Slip Forms are shown in Table 1.** The means indicate the average number of times cadets reported to the hospital for the category specified, and also the average number of days hospitalized per cadet. Although not listed in Table 1, it should be noted that there were large differences in the frequencies with which cadets reported to the hospital for treatment. For instance, there were many cadets who never reported to sick call and others that reported more than 20 times.

* Now called Leadership Evaluation System (LES).

**The purpose of the present study did not call for any more detailed breakouts of the basic data. A study by Gottheil, Vielhaber, and Lauterback (1964) broke out the data in great detail; for example, sick calls by month, medical problem, day of the week, and cadet attendance.

TABLE 1

BASIC STATISTICS OF PREDICTOR VARIABLES BY CLASS

Predictor	Basic Statistics	
	Mean	SD
1. Number of Sick Calls		
1972	2.27	2.75
1973	2.39	2.30
1974	3.14	3.38
1975	2.30	2.40
2. Number of Emergency Sick Calls		
1972	1.32	2.04
1973	1.46	2.11
1974	1.52	1.88
1975	1.32	1.84
3. Number of Appointments		
1972	4.86	4.27
1973	3.43	4.37
1974	4.38	3.63
1975	1.49	2.07
4. Number of No Reasons Given		
1972	0.43	0.80
1973	0.33	0.77
1974	0.38	0.81
1975	0.22	0.47
5. Total of 1, 2, 3, 4		
1972	8.88	6.34
1973	7.61	6.32
1974	9.42	6.51
1975	5.33	4.74
6. Days Hospitalized		
1972	1.04	2.51
1973	0.87	2.83
1974	1.63	4.40
1975	1.16	2.83

In relating the frequencies of cadets reporting to sick call to the criteria, the number of sick calls, emergency sick calls, appointments, and the number for which no reasons were given were combined to form a Total (Number 5 in Table 1) for each cadet and then correlated with the criteria for each Class. The correlations between GOM and Total were .16* for the Class of 1972, .02 for the Class of 1973, .16* for the Class of 1974, and .14* for the Class of 1975. The correlations between LES and Total were .29**, .17*, .09, and .15* for the Classes of 1972, 1973, 1974, 1975 respectively.

In attempting to relate days hospitalized with the criteria, it was discovered that the distributions did not meet the assumptions of the Pearson product-moment correlation. To avoid this difficulty the distributions were broken out into cadets who were never hospitalized during the period of data collection, and cadets who were hospitalized for one or more days. Z tests for uncorrelated data were then computed on the mean GOM and LES scores of these two groups for each Class. Table 2 shows that there were no significant differences in GOM for any of the Classes for the two groups. Table 3 indicates that the only Class to show a significant difference on LES was the Class of 1975, where cadets who were not hospitalized performed better. It should be noted that the larger the number on an Order of Merit the poorer the performance.

TABLE 2
COMPARISON OF CADETS HOSPITALIZED
AND CADETS NOT HOSPITALIZED ON GOM

GROUP	N	X	SD	Z VALUE ¹
Class of 1972				
Cadets Hospitalized	62	387	243	
Cadets Not Hospitalized	138	387	236	0.00
Class of 1973				
Cadets Hospitalized	54	514	265	
Cadets Not Hospitalized	186	478	277	0.86
Class of 1974				
Cadets Hospitalized	45	546	322	
Cadets Not Hospitalized	149	484	290	1.14
Class of 1975				
Cadets Hospitalized	53	606	304	
Cadets Not Hospitalized	190	519	310	1.82

¹No Z Values were significant at the .05 level.

* $p < .05$
** $p < .01$

TABLE 3
COMPARISON OF CADETS HOSPITALIZED
AND CADETS NOT HOSPITALIZED ON ASR

GROUP	N	\bar{X}	SD	Z VALUE
Class of 1972				
Cadets Hospitalized	62	442	261	0.98
Cadets Not Hospitalized	138	404	234	
Class of 1973				
Cadets Hospitalized	54	489	265	0.21
Cadets Not Hospitalized	186	480	283	
Class of 1974				
Cadets Hospitalized	45	422	283	-0.28
Cadets Not Hospitalized	149	436	287	
Class of 1975				
Cadets Hospitalized	53	620	297	2.55*
Cadets Not Hospitalized	190	501	300	

*p < .05

All the data above pertain to cadets who were still in attendance at the Military Academy when the data collection phase of the study was completed. While it was not the purpose of this study to utilize data obtained from cadets who would later resign, it should be mentioned that in almost every case, cadets who resigned reported to sick call less often; that is, resigned cadets had fewer emergency sick calls, appointments, number of no reasons given, total, and days hospitalized than did retained cadets. The reason for this is probably that resigned cadets were present at the Military Academy a shorter period of time and thus had less time in which to become sick and report for treatment at the hospital.

DISCUSSION

The purpose of this study was to identify the relationships between ASR and GOM and the frequency of reporting to the hospital for treatment and the number of days hospitalized. While three of the four Classes showed statistically significant correlations between GOM and Total Sick Calls, the correlations were so small as to have very little practical importance for predictive purposes. None were much above the .138 needed for statistical significance at the .05 level. The highest of the correlations (.16) indicated that total sick calls accounted for less than 3 percent of the variance in GOM. With the fairly large N's used in this study it was not surprising that statistically significant results occurred.

In general, similar findings occurred for the relationship between ASR and Total Sick Calls, and the same interpretation as above can be made. However, the .29 correlation between these two variables for the Class of 1972 was significant at the .01 level and indicates a definite, but again a small relationship with less than 9 percent of overlapping variance accounted for.

In regard to the comparisons of cadets hospitalized and cadets not hospitalized on GOM, the Z values indicated that the two groups were not significantly different on GOM standing. While there was a trend for cadets not hospitalized in the Classes of 1973-74-75 to perform better, the differences were not large enough to be significant. The large standard deviations probably nullified the mean differences and thus contributed to the non-significant results. On ASR performance, the only significant difference occurred for the Class of 1975, where cadets not hospitalized performed better. Whether this finding is a chance occurrence because of the many Z values computed, or a meaningful finding is difficult to say. If it is the former then this finding can be disregarded. If it is the latter then it may indicate that for Plebes, absence from the company area that is caused by admission to the hospital is related to lowered

ratings on ASR. For Plebes, absence is most likely more critical than it is for upperclassmen when it comes to rating time simply because it is difficult to rate someone high that one does not know, and Plebes have not had as much time to get to know each other as have upperclassmen. Furthermore, an absent Plebe may be thought of as a malingerer. Thus, amount of time spent away from the company area may be important for Plebes as far as ASR is concerned. This finding may have implications for counseling and career decision making. However, whether or not hospital related absences are associated with poor motivation is a matter that was not addressed in this study. This study identified relationships, but no cause and effect relationship was implied.

CONCLUSIONS

For three out of the four classes there were statistically significant relationships between both ASR and GOM and the number of times a cadet reported to the hospital for treatment. However, the correlations were low enough to indicate that there was very little of practical importance in them, other than to indicate that sick call does not have a great influence on ASR and GOM. Results also indicated that upperclass cadets who had been hospitalized for one or more days did not differ on GOM and ASR from upperclass cadets who had not been hospitalized, indicating that hospitalization had little to do with these performance indicators. However, for Plebes, better ASR scores were obtained by cadets who had not been hospitalized during the data gathering period.

REFERENCES

- Gottheil, E., Vielhaber, D. P., and Lauterback, C. G. Sick Call as a Criterion of Adjustment at the United States Military Academy. West Point, N. Y.: Medical Research Project, U. S. Army Hospital, Technical Report No. 16, July, 1964.
- Lauterback, C. G., Vielhaber, D. P., and Gottheil, E. The Relationships of Selected Test Measures and New Cadet Barracks Performance to Attrition and Later Cadet Performance. West Point, N. Y.: Medical Research Project, U. S. Army Hospital, Technical Report No. 15, July, 1964.

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